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Adaptation investments and homeownership ☆

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Abstract

This article develops a model where ownership improves the efficiency of the housing market as it enhances the utility of housing consumption for some consumers. The model is based on an extended Hotelling–Lancaster utility approach in which the ideal variant of housing is obtainable only by adapting the home through a supplementary investment. Ownership offers low costs of adaptation, but has high contract costs compared with renting. Consumers simultaneously choose housing demand and tenure, and because of the different cost structure only consumers with strong preferences for individual adaptation of the home choose ownership. This article analyses the consumer's optimization. The model provides an explanation for the observation that homeowners typically live in larger dwelling units than tenants. It also provides an explanation for a high price of housing services tending to reduce homeownership rates.

JEL classifications: D11; K11; R21; R31

Keywords: Homeownership rates; Housing consumption; Individual adaptation; Contract costs; Housing demand; Tenure choice; Dwelling size; Ownership probability; Housing investments; Housing preference

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1. Introduction

Housing is a dual good. On the one hand, the flow of services from housing capital generates utility and is consumed by households. On the other hand, residential capital represents an asset which households may include in their portfolio of wealth. Institutionally, the two goods are traded on separate markets. The flow of services from housing capital is traded on a rental market where tenants contract for use of residential capital during a period and pay rents to owners. Similarly, the stock of housing capital is traded on a market for residential capital.

In a free market economy with perfect foresight and absence of contracting costs, the consumer is in principle indifferent whether to own or rent housing capital. However, these assumptions are not realistic and for at least four reasons the consumers may have opinions on whether to own or rent housing capital.

Firstly, consumers may include housing assets in their portfolio of wealth because of uncertainty. Housing capital may be considered a risky asset with yields that, by its covariance with yields from other financial assets and human capital, offers a possibility for consumers to improve the risk-return profile of their total portfolio and consumption flow. The seminal article by Henderson and Ionnides (1983) on this aspect has been followed by a number of contributions; see e.g. the reference list Ortalo-Magné and Rady (2002). Although this aspect is important for the housing market, it is equally important to emphasize that it does not explain why house owners generally choose to live in own houses as homeowners.[1] Furthermore, the consumer may diversify his portfolio at the stock market and hence trade real estate assets indirectly. This allows the consumer to separate portfolio decisions from decisions about homeownership.

Secondly, homeownership typically has relevance because of institutional factors. In most countries income taxes distorts consumers towards ownership of housing capital used for their consumption. The reason is that implicit income (imputed rent) from owner occupied residential capital is not taxed or taxed at a lower rate than other sources of income. If incomes are taxed under a progressive tax schedule, high income-earners are especially inclined to own housing capital for own consumption. This tax argument is used in several analyses as a rationale for ownership; see e.g. Swan (1984). Imperfections on the capital market, persons or households' financial capacity and/or rent control may also influence the choice between renting and owning residential capital for consumption; see the survey article about housing by Smith et al. (1988) for these arguments.

Thirdly, Linneman (1986) invokes differences in production or cost efficiency between landlords and owner-occupiers as an important factor behind ownership rates. The housing costs include operating costs such as maintenance of the dwelling and the surrounding area. There may be both pecuniary and non-pecuniary externalities for such activities in high density areas. A landlord who owns a multi-storey building is in a stronger bargaining position for negotiating contracts for maintenance than individual home owners. Similarly with non-pecuniary externalities, e.g. related to cleaning of common facilities of a multi-storey building, coordination problems disappear with only one owner. Linneman concludes that high cost efficiency by landlords in high density residences is the reason

[1] Following the U.S. Census Bureau, the difference between homeowner units and owner occupied units consists of vacant for-sale-only homeowner units. The difference makes up less than 2% of homeowner units and is therefore neglected in the following.